IN THE CLAIMS:

Amend claims 1, 3, 5-7, 10, 11, 18 and 19 as follows:

1. (Twice amended) An administration regimen for improved inhibition of gastric acid secretion [characterized by an extended blood plasma profile of an H⁺, K⁺-ATPase inhibitor,] comprising the oral administration of a pharmaceutical formulation comprising a therapeutically effective amount of an [the] H⁺, K⁺-ATPase inhibitor, wherein the administration regimen induces an extended blood plasma profile of the H⁺, K⁺-ATPase inhibitor [having the formula I

$$\begin{array}{c} \bullet \\ \parallel \\ \text{Het}_1 \text{---} \text{X} \text{---} \text{S} \text{---} \text{Het}_2 \end{array} \qquad \text{I}$$

wherein

Het₁ is

$$R_1$$
 R_2
 R_3
 R_4
 R_5
 R_6

Het2 is

$$R_6$$
 R_7
 R_8
 R_8
 R_9
 R_9
 R_9

X =

wherein

N in the benzimidazole moiety means that one of the ring carbon atoms substituted by R₆-R₉ optionally may be exchanged for a nitrogen atom without any substituents;

R₁, R₂ and R₃ are the same or different and selected from the group consisting of hydrogen, alkyl, alkoxy, fluorine-substituted alkoxy, alkylthio, alkoxyalkoxy, dialkylamino, piperidino, morpholino, halogen, phenyl and phenylalkoxy;

R₄ and R₅ are the same or different and selected from the group consisting of hydrogen, alkyl and aralkyl;

 $R_{6^{\prime}}$ is hydrogen, halogen, trifluoromethyl, alkyl and alkoxy;

R₆-R₉ are the same or different and selected from the group consisting of hydrogen, alkyl, alkoxy, halogen, halo-alkoxy, alkylcarbonyl, alkoxycarbonyl, oxazolyl, trifluoroalkyl, or adjacent groups R₆-R₉ form ring structures which may be further substituted;

 R_{10} is hydrogen or forms an alkylene chain together with $R_{3;}\,\mbox{and}\,$

 R_{11} and R_{12} are the same or different and selected from the group consisting of hydrogen, halogen or alkyl].

BV

- 5. (Twice amended) The administration regimen according to claim 1, wherein the extended plasma profile is obtained by oral administration of the pharmaceutical formulation which releases the H⁺,K⁺-ATPase inhibitor for absorption with an almost constant rate during an extended time period and the extended plasma profile is maintained for 2-12 hours.
- 6. (Twice amended) The administration regimen according to any of claims <u>1-4</u> [1-5], wherein the extended plasma profile is maintained for 2-12 hours.
- 7. (Twice amended) An oral pharmaceutical formulation comprising an H⁺, K⁺-ATPase inhibitor and a pharmaceutically acceptable carrier, wherein the formulation induces an extended blood plasma profile of the H⁺, K⁺-ATPase inhibitor [and the H⁺, K⁺-ATPase inhibitor is a compound of the formula I

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{Het}_1\text{---}\text{X}\text{--}\text{S}\text{---}\text{Het}_2 \end{array} \qquad \qquad \text{I}$$

wherein

Het₁ is

$$R_1$$
 R_2 R_3

or

Het2 is

BZH

or

X =

or

wherein

N in the benzimidazole moiety means that one of the ring carbon atoms substituted by R₆-R₉ optionally may be exchanged for a nitrogen atom without any substituents;

R₁, R₂ and R₃ are the same or different and selected from the group consisting of hydrogen, alkyl, alkoxy, fluorine-substituted alkoxy, alkylthio, alkoxyalkoxy, dialkylamino, piperidino, morpholino, halogen, phenyl and phenylalkoxy;

R₄ and R₅ are the same or different and selected from the group consisting of hydrogen, alkyl and aralkyl;

R₆' is selected from the group consisting of hydrogen, halogen, trifluoromethyl, alkyl and alkoxy;

Bapt

R₆-R₉ are the same or different and selected from the group consisting of hydrogen, alkyl, alkoxy, halogen, halo-alkoxy, alkylcarbonyl, alkoxycarbonyl, oxazolyl, trifluoroalkyl, or adjacent groups R₆-R₉ form ring structures which may be further substituted;

 R_{10} is hydrogen or forms an alkylene chain together with R_{3} ; and

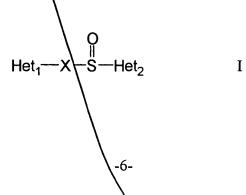
R₁₁ and R₁₂ are the same or different and selected from the group consisting of hydrogen, halogen or alkyl].

B3

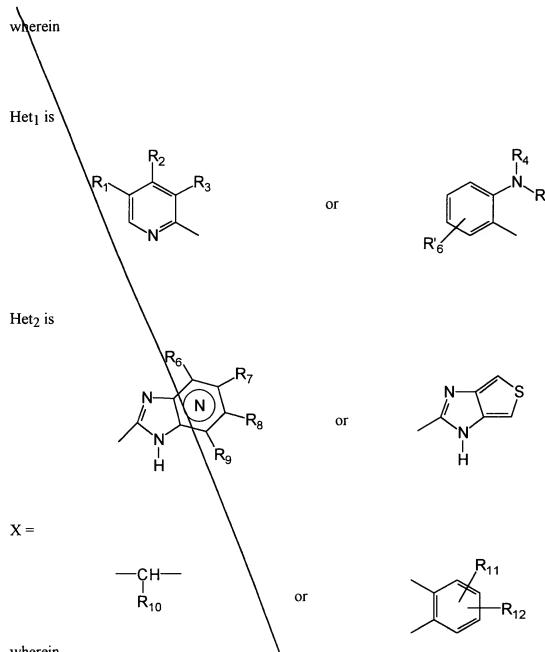
- 10. (Twice amended) The oral pharmaceutical formulation according to claim 7, wherein the pharmaceutical formulation releases the H⁺,K⁺-ATPase inhibitor for absorption with an almost constant rate during an extended time period and the extended plasma profile is maintained for 2-12 hours.
- 11. (Twice amended) The oral pharmaceutical formulation according to any of claims <u>7-9</u> [7-10], wherein the extended plasma profile is maintained for 2-12 hours.

34

18. (Amended) An administration regimen for improved inhibition of gastric acid secretion [characterized by an extended clood plasma profile of an H⁺, K⁺-ATPase inhibitor,] comprising the oral administration of a pharmaceutical formulation comprising a therapeutically effective amount of an [the] H⁺, K⁺-ATPase inhibitor, wherein the administration regimen induces an extended blood plasma profile of the H⁺, K⁺-ATPase inhibitor, [having the formula I







wherein

N in the benzimidazole moiety means that one of the ring carbon atoms substituted by R₆-R₉ optionally may be exchanged for a nitrogen atom without any substituents;

R₁, R₂ and R₃ are the same or different and selected from the group consisting of hydrogen, alkyl, alkoxy, fluorine-substituted alkoxy, alkylthio, alkoxyalkoxy, dialkylamino, piperidino, morpholino, halogen, phenyl and phenylalkoxy;

R₄ and R₅ are the same or different and selected from the group consisting of hydrogen, alkyl and aralkyl;

R6' is hydrogen, halogen, trifluoromethyl, alkyl and alkoxy;

 R_6 - R_9 are the same of different and selected from the group consisting of hydrogen, alkyl, alkoxy, halogen, halo-alkoxy, alkylcarbonyl, alkoxycarbonyl, oxazolyl, trifluoroalkyl, or adjacent groups R_6 - R_9 form ring structures which may be further substituted;

R₁₀ is hydrogen or forms an alkylene chain together with R₃; and

 R_{11} and R_{12} are the same or different and selected from the group consisting of hydrogen, halogen or alkyl,]

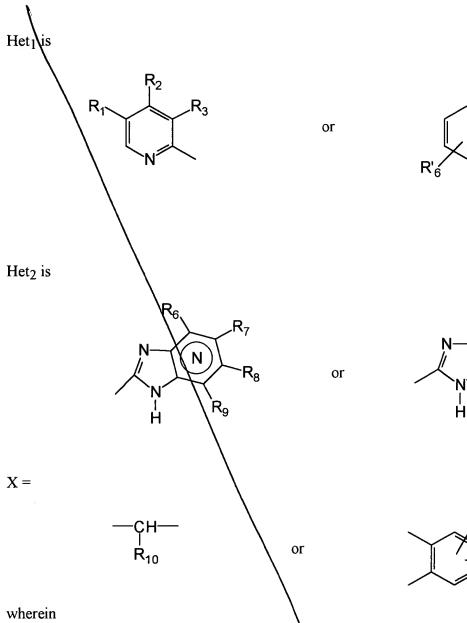
with the proviso that the H⁺, K⁺-ATP ase inhibitor is not pantoprazole.

19. (Amended) An oral pharmaceutical formulation comprising an H⁺, K⁺-ATPase inhibitor and a pharmaceutically acceptable carrier, wherein the formulation induces an extended blood plasma profile of the H⁺, K⁺-ATPase inhibitor [and the H⁺, K⁺-ATPase inhibitor is a compound of the formula I

I

wherein

Het₁ Het2 is X =



N in the benzimidazole moiety means that one of the ring carbon atoms substituted by R₆-R₉ optionally may be exchanged for a nitrogen atom without any substituents;

R₁, R₂ and R₃ are the same or different and selected from the group consisting of hydrogen, alkyl, alkoxy, fluorine-substituted alkoxy, alkylthio, alkoxyalkoxy, dialkylamino, piperidino, morpholino, halogen, phenyl and phenylalkoxy;

R₄ and R₅ are the same or different and selected from the group consisting of hydrogen, alkyl and aralkyl;

R₆' is selected from the group consisting of hydrogen, halogen, trifluoromethyl, alkyl and alkoxy;

R₆-R₉ are the same or different and selected from the group consisting of hydrogen, alkyl, alkoxy, halogen, halo-alkoxy, alkylcarbonyl, alkoxycarbonyl, oxazolyl, trifluoroalkyl, or adjacent groups R₆-R₉ form ring structures which may be further substituted;

 R_{10} is hydrogen or forms an alkylene chain together with $R_{3;}$ and

 R_{11} and R_{12} are the same or different and selected from the group consisting of hydrogen, halogen or alkyl],

with the proviso that the H⁺, K⁺-ATPase inhibitor is not pantoprazole.

Add new claims 20-22.

20. The administration regimen according to claim 1 or 18, wherein the H⁺, K⁺-ATPase inhibitor is a compound of the formula I

wherein

BSH

Het
$$_{1}$$
 is $_{1}$ is $_{1}$ $_{1}$ $_{2}$ $_{3}$ $_{4}$ $_{1}$ $_{4}$ $_{5}$ $_{7}$ $_{7}$ $_{8}$ $_{10}$ $_{1}$ $_{10}$

N in the benzimidazole moiety means that one of the ring carbon atoms substituted by R₆-R₉ optionally may be exchanged for a nitrogen atom without any substituents;

R₁, R₂ and R₃ are the same or different and selected from the group consisting of hydrogen, alkyl, alkoxy, fluorine-substituted alkoxy, alkylthio, alkoxyalkoxy, dialkylamino, piperidino, morpholino, halogen, phenyl and phenylalkoxy;

 R_4 and R_5 are the same or different and selected from the group consisting of hydrogen, alkyl and aralkyl;

R6' is hydrogen, halogen, trifluoromethyl, alkyl and alkoxy;

R₆-R₉ are the same or different and selected from the group consisting of hydrogen, alkyl, alkoxy, halogen, halo-alkoxy, alkylcarbonyl, alkoxycarbonyl, oxazolyl, trifluoroalkyl, or adjacent groups R₆-R₉ form ring structures which may be further substituted;

R₁₀ is hydrogen or forms an alkylene chain together with R_{3;} and

 R_{11} and R_{12} are the same or different and selected from the group consisting of hydrogen, halogen or alkyl.

21. The oral pharmaceutical formulation according to claim 7 or 19, wherein the H⁺, K⁺-ATPase inhibitor is a compound of the formula I

Het₁—
$$X-S-Het_2$$
 I

wherein

Het₁ is

65 d

Het₂ is
$$R_{10} = R_{10} = R_{12}$$
or
$$R_{10} = R_{12}$$

$$R_{10} = R_{12}$$

$$R_{10} = R_{12}$$
wherein

N in the benzimidazole moiety means that one of the ring carbon atoms substituted by R₆-R₉ optionally may be exchanged for a nitrogen atom without any substituents;

R₁, R₂ and R₃ are the same or different and selected from the group consisting of hydrogen, alkyl, alkoxy, fluorine-substituted alkoxy, alkylthio, alkoxyalkoxy, dialkylamino, piperidino, morpholino, halogen, phenyl and phenylalkoxy;

 R_4 and R_5 are the same or different and selected from the group consisting of hydrogen, alkyl and aralkyl;

R6' is hydrogen, halogen, trifluoromethyl, alkyl and alkoxy;

R₆-R₉ are the same of different and selected from the group consisting of hydrogen, alkyl, alkoxy, halogen, halo-alkoxy, alkylcarbonyl, alkoxycarbonyl, oxazolyl, trifluoroalkyl, or adjacent groups R₆-R₉ form ring structures which may be further substituted;

R₁₀ is hydrogen or forms an alkylene chain together with R_{3;} and

 R_{11} and R_{12} are the same or different and selected from the group consisting of hydrogen, halogen or alkyl.

22. The method according to claim 15 or 16, wherein the H⁺, K⁺-ATPase inhibitor is a compound of the formula I

O Het₁—X-S-Het₂

I

wherein

Het₁ is



$$R_1$$
 R_2 R_3

or

or

Het2 is

N—S N—S H

X =

wherein

N in the benzimidazole moiety means that one of the ring carbon atoms substituted by R₆-R₉ optionally may be exchanged for a nitrogen atom without any substituents;

R₁, R₂ and R₃ are the same or different and selected from the group consisting of hydrogen, alkyl, alkoxy, fluorine-substituted alkoxy, alkylthio, alkoxyalkoxy, dialkylamino, piperidino, morpholino, halogen, phenyl and phenylalkoxy;

R₄ and R₅ are the same or different and selected from the group consisting of hydrogen, alkyl and aralkyl